



pennsylvania

DEPARTMENT OF ENVIRONMENTAL PROTECTION



Bureau of Environmental Cleanup & Brownfields

Aboveground Storage Tanks

2015 Technical Training Seminar

Administrative Training

IAM/IAF Certification Renewal

RECEIVING CREDIT FOR TRAINING

- ✓ **Sign in upon arrival in the classroom**
- ✓ **If asked please present credentials**
 - **Certification Card**
 - **Photo ID**
- ✓ **Remain for the entire training session**
- ✓ **Obtain your training certificate**

2007 REGULATION CHANGES

§ 245.1 – Definitions

- **Re-regulates large aboveground heating oil tanks greater than 30,000 gallons capacity where the product is consumed on the premises where stored**
- **Registration of existing tanks was to have been accomplished by January 9, 2008**
- **Requires most combination of tanks (manifold systems) to be registered separately**

2007 REGULATION CHANGES

§ 245.1 – Definitions

Regulated substances now include:

- **Biodiesel**
- **Synthetic fuels and fluids (motor oil)**
- **Ethanol intended for blending with motor fuel**
- **Several non-petroleum oils**

Why are we here?

- **§ 245.114(c) An applicant shall meet the following minimum training requirements...for renewal of tank handling certification.**

➤ Why are we here?

For tank handlers:

One (1) of the training requirements is attendance at any DEP-provided administrative training session. You must attend within the 24 month period preceding your submission of an application requesting renewal of tank handling certification.

Subchapter A – General Provisions

§ 245.21 – Tank Handling Activities

- Tank handling activities shall be conducted by a certified installer

§ 245.31 – Tightness Testing

- Shall be conducted by a Department-certified UTT
- As of November 10, 2008 line testing requires UTT certification
- Testing method must be a current DEP-approved training course

Subchapter B – Certification Program

§ 245.102 – Requirement for Certification

- (a) A person may not conduct tank handling or tightness testing activities unless that person holds a current installer certification issued by the Department for the applicable certification category as indicated in subsection 245.110 (relating to certification of installers)
- An inspector is not classified as a tank handler

Subchapter B – Certification Program

§ 245.104 – Application for *Initial* Installer or Inspector Certification

- ✓ Use current forms as provided by the Department
- ✓ Evidence that the applicant has met the prerequisites for certification – Experience, Training, Activities
- ✓ Initial training requirement met through the vendor list, out-of-state certification, industry certification/training
- ✓ A complete application shall be submitted no later than 60 days prior to the announced date of the certification examination

Technical Training Courses

§ 245.142 – Training Courses (tank handlers)

(a) Technical training for initial category-specific certification must be based on Nationally-recognized codes and standards in conjunction with manufacturers specifications

(b) Technical training for renewal of category-specific certification must at a minimum review the technical and regulatory material appropriate for the certification category

Subchapter B – Certification Program

STORAGE TANK INSTALLER AND INSPECTOR CERTIFICATION APPLICATION (Read the instructions before completing this application)

DATE		OFFICIAL USE ONLY	
Appl. Appr.	Appl. Denied	Application # _____	
_____	_____	Client ID # _____	
_____	_____	Employer ID # _____	
		Master Auth. # _____	
		Auth. ID# _____	
		Date Rec'd _____	

SECTION I – APPLICANT INFORMATION

Name _____ Last _____ First _____ MI _____ SSN _____

Home Address _____

City _____ State _____ Zip +4 _____

Municipality _____ County _____
(City, Boro, Twp)

Home Telephone (_____) _____ Cell Phone (_____) _____

Email Address _____



Subchapter B – Certification Program

2630-PM-BECB0506 4/2012

SECTION III – CURRENT EMPLOYER INFORMATION (If more than one, attach additional pages)

Hire Date _____ Employer's Federal Tax ID # (EIN) _____
Employer's DEP Client ID # _____ Employer's Certification # _____
Name _____ Company Type Code _____
Street Address _____
City _____ State _____ Zip +4 _____
Municipality _____ County _____
(City, Boro, Twp)
Telephone (_____) _____ - _____ Fax (_____) _____ - _____
Company Contact Person _____
Email Address _____

SECTION IV – MAIL CORRESPONDENCE TO ADDRESS

Applicant Address Employer's Address

If the applicant has more than one employer and chooses to have correspondence delivered to the employer's address, provide the name of that employer. _____

Subchapter B – Certification Program

File Edit Application Client Site Facility Compliance Fee Collection Bonding Views Reports Admin Complaints Help Window

Record / Verify Client - Role : APPL

Clients

Client Id 125107 Client Type INDIV Individual

Organization

Individual SMITH JOHN A

Search Name SMITH JOHN A

Browse by Name

Browse by AKA

General HQ Address Add'l Addresses AKAs Names

SSN XXX-XX-1234 EIN DUN DOB

Status ACTIN Active, Indiv Status Date

Resp Program WMHW WM Hazardous Waste

Created 02/18/1999 RCRIS BATCH 1

Updated

Verified No

Comment

Back Go To

Individual's Social Security Number.

Record: 1/1 <OSC>

Subchapter B – Certification Program

	Initial	Renewal		Delete
		Retest	Training	
INSTALLER CATEGORIES				
Underground				
UMX _____	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
UMR _____	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
UTT _____	<input type="checkbox"/>		<input type="checkbox"/>	<input type="checkbox"/>
Aboveground				
AMMX _____	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
AMNX _____	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
AMR _____	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
AFMX _____	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
AFR _____	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
AMEX _____	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
ACVL _____	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Underground/Aboveground				
TL _____	<input type="checkbox"/>		<input type="checkbox"/>	<input type="checkbox"/>
INSPECTOR CATEGORIES				
Underground				
IUM _____	<input type="checkbox"/>		<input type="checkbox"/>	<input type="checkbox"/>
Aboveground				
IAM _____	<input type="checkbox"/>		<input type="checkbox"/>	<input type="checkbox"/>
IAF _____	<input type="checkbox"/>		<input type="checkbox"/>	<input type="checkbox"/>



Subchapter B – Certification Program

Aboveground

IAM _____ _____
IAF _____ _____

_____ <input type="checkbox"/> _____
_____ <input type="checkbox"/> _____

SECTION VI – APPLICANT’S CERTIFYING STATEMENT

I certify under penalty of law as provided in 18 PA C.S.A. §4904 (relating to unsworn falsification to authorities), that I am the applicant herein named, that I have received the safety training as provided for under §245.111(h) of the regulations, and that the information I have provided on this Application for Certification is true, accurate, and complete to the best of my knowledge and belief.

Signature of the Applicant (In Ink)

_____/_____/_____
Date

SECTION VII – EMPLOYER’S CERTIFYING STATEMENT

I certify under penalty of law as provided in 18 PA C.S.A. §4904 (relating to unsworn falsification to authorities), that I am an officer of the applicant’s employer. The applicant herein named has been provided with adequate safety training as provided for under §245.111(h) of the regulations. I further certify that the information provided on this Application for Certification is true, accurate, and complete to the best of my knowledge and belief.

Signature & Title of Company Officer (In Ink)

_____/_____/_____
Date

► Certification Examinations

§ 245.105 – Certification Examinations

- **Separate administrative and technical content for examinations**
- **Passing score 80 for administrative and each technical section**
- **Applicants have up to 1 year from the date of authorization to take the examination**
- **An applicant failing an examination is eligible to retake the examination for up to 1 year from the failed examination test date, but no later than 18 months from date of authorization.**

➤ Certification Examinations

The Certification Exam Process

- **Application reviewed (Experience, Education, Training, Attachments)**
- **Authorization letter and study materials sent to applicant at address designated on application (Home or Employer)**
- **DEP provides Plut Examination Service (PES) with names, addresses, list of authorized categories, & eligibility dates.**
- **PES notifies applicant of test dates and locations; provides registration forms & instructions. Exam fee \$75 per module.**

Certification Examinations

The Certification Exam Process, continued...

- Two weeks before the exam, PES provides DEP with a list of individuals who registered for the exam.
- The Certification Unit cross references the list with applicant names & authorizations; verifies accuracy; notifies PES it is ok to proceed.
- Plut Examination Service prints the examination forms.
 - At this point it is too late to schedule this examination.
 - PES refund and credit policy is in effect, and is clearly defined in the registration materials mailed by PES to all individuals authorized by DEP to sit for the exams.

Subchapter B – Certification Program

Certification Amendment Form

Change or add
employer?

SECTION II – CURRENT EMPLOYER INFORMATION:

Federal Employer Tax Number (EIN) _____

Employment Start Date _____ Company Certification Number: _____

Employer Client ID _____ Company Type Code _____

Employer Name _____

Address _____

City _____ State _____ Zip+4 _____

County _____ Municipality _____

(City, Township, Borough)

Company Contact _____

Phone: (_____) _____ - _____ Ext _____ Fax: (_____) _____ - _____

Email _____

Are you Adding an Employer? Changing Employers? Deleting an Employer?

Previous Employer's Name _____ Date of change _____

SECTION III – MAILING INFORMATION:

Send correspondence to (Choose One) Applicant's Home Address Employer's Address

If more than one employer, specify employer _____

Signature _____ Date _____

▶ Notable Changes to Certifications

- **AFMX** – Now permits the *modification of tank components* of an aboveground manufactured storage tank system. (ex: shell, bottom, roof, etc.)
- **AMR** – Individuals holding UMR certification may apply for AMR certification, and will have the choice of taking the AR or UR module.
 - If the individual holding UMR certification has passed the UMR exam within most recent 2 years, AMR will be granted upon application.
- **TL** - For purposes of corrosion protection, installation or repair of internal UST lining no longer permitted. A certified TL may evaluate the integrity of an internal UST lining or supervise the evaluation of the lining.

AST Inspectors

- Conflict of interest (§ 245.106)...A certified inspector may not be:
 - An employee of the tank owner
 - A certified installer on the same tank handling activity that they are the inspector
 - An employee of the company performing the certified tank handling activity they are inspecting on a field constructed tank.

Inspector Qualifications

§ 245.113 – Certified Inspector Experience & Qualifications

- **IAM - API 653 Certification or STI inspector certification**
- **IAF - API 653 Certification**
- **IUM – UMX Certification, UTT familiarization, Corrosion Protection Training**

Certification Renewal

§ 245.114 – Renewal and Amendment of Certification

- **Certification categories renewed since January 9, 2008 have a uniform expiration date of 3 years from the issuance date of the first category renewed or added.**
- **(b) Upon conversion to the uniform expiration date...the issued certification will be valid for 3 years...**
- **(d) An applicant shall meet the following requirements in the appropriate category for renewal of inspector certification**
 - **The Department has reestablished a training program for those inspectors renewing IUM, IAM, and IAF certification.**
 - **The inspector training required under this subsection is provided free of charge by the technical staff of the UST and AST storage tank sections.**

➤ Renewal Notification Letters

- **Individuals and companies are notified by mail 4-5 months prior to expiration of each certification.**
 - ✓ This is a courtesy only
 - ✓ Requires the department to maintain accurate certification records
 - ✓ DEP notification of changes to Addresses, phone numbers, employer/employee relationships are extremely important
- Failure to notify the Department of changes in certification information is a violation of the regulations.

➤ Certification Renewal

§ 245.114 – Renewal and Amendment of Certification

- **As of November 10, 2009, *tank handlers*:**
 - **Attend category-specific training,**
 - The training course must be a Department-approved training course. The list of approved training courses is available on the Storage Tanks web page. The list is updated as additional training courses are approved.
 - **or Retest,**
 - **and attend Administrative Training**

Expired over 60 days!

An individual's failure to renew certification within the *60 day period immediately following* an expiration date requires applicant to meet the *initial certification requirements* for that category. §245.114 (g)(1)

Renewal requests submitted more than 60 days beyond the expiration date require:

- Application
- Attachment A – listing verifiable activities
- Pass Category-specific Examination Module
- Note – Technical Training requirement specified at §245.111(a) is met by individuals who previously held certification in the category

Company Certification

§ 245.121 – Certification of Companies

- **Primary consideration: the company applying for certification must employ at least one (1) DEP certified tank handler or inspector.**
 - **Note: An employee is an individual who has completed a IRS Form W-4 and to whom a company issues a IRS Form W-2 (Wage and Earnings Statement) at the end of the year.**
 - **A company may contract with a certified individual to whom the company will issue an IRS Form 1099.**
 - **The non-certified company may contract with a certified company for the performance of tank handling, tightness testing or inspection activities.**
 - **The certified individual and certified company is responsible for submitting all forms or reports, and provides DEP with all applicable certification ID numbers.**

Company Certification

2570-PM-BWM0510 Rev. 12/2009

Federal Employer Tax ID # (EIN) _____

SECTION VII – CERTIFIED EMPLOYEES

Please list all certified installers and/or inspectors employed by this company. Also, if applicable list the names and termination dates of any previously employed and certified individuals who have terminated. If you have no PA Certified Installers or Inspectors write "None". If you have an employee who has applied for their first certification write "Pending". Note that an "employee" has a IRS Form W-4 (Tax withholding) on file and receives a Form W-2 (Wage and Earnings Statement) from the company. At least one certified individual must be employed in order for the company to receive DEP certification.

**If more space is needed copy this page before listing the certified individuals.*

Installer/Inspector Name	Certification Number	A=Active	P=Pending	T=Terminated
		Status (A, P, T)	Hire Date	Termination Date
Brown, John L.	0101	A	07/22/05	
Smith, Edward P.	0202	T		03/21/09
Jones, Roger B.	NA	P	02/19/08	

Standards of Performance

- **§ 245.132 – Standards of Performance**

(a) Certified companies, certified installers and certified inspectors shall...

(1) Maintain current technical and administrative specifications and manuals...

(2) Submit, within 60 days of the inspection activity or 30 days of the tank handling activity, a Department-approved form certifying that the activity... meets the requirements of the act and this chapter...

... (for projects requiring multiple certification activities and individuals the tank handling and inspection reports may be submitted within 30 days of the conclusion of all activities).

Standards of Performance

- (3) Maintain complete records of tank handling and inspection activities for a minimum of 10 years.**
- (4) Report a release...or suspected contamination...observed while performing certified activities. Submit a written report within 48 hours. If notification is being submitted as a result of a failed tightness test, a copy of the test should accompany the written notification to the Region.**
- (6) Installers or inspectors should not sign documentation unless personally performed or supervised.**
- (7) Not certify... that the storage tank system project or component thereof is complete unless it complies with the act or this chapter. Project certification applies to both certified activities and non-tank handling activities performed as part of the project.**

Standards of Performance

(b) Certified installer or certified inspector shall display a certification identification card or certificate upon request.

Standards of Performance

Release Reporting Requirements for Department Certified Individuals

Standards of Performance

Release – “Spilling, leaking, emitting, discharging, escaping, leaching or disposing from a storage tank into surface waters and groundwaters of this Commonwealth or soils or subsurface soils in an amount equal to or greater than the reportable released quantity determined under section 102 of CERCLA, and regulations promulgated thereunder, or an amount equal to or greater than a discharge as defined in section 311 of the Federal Water Pollution Control Act and regulations promulgated thereunder.

The term also includes spilling, leaking, emitting, discharging, escaping, leaching or disposing from a storage tank into a containment structure or facility that poses an immediate threat of contamination of the soils, subsurface soils, surface water or groundwater.”



Standards of Performance

An **indication of a release** includes one or more of the following conditions:

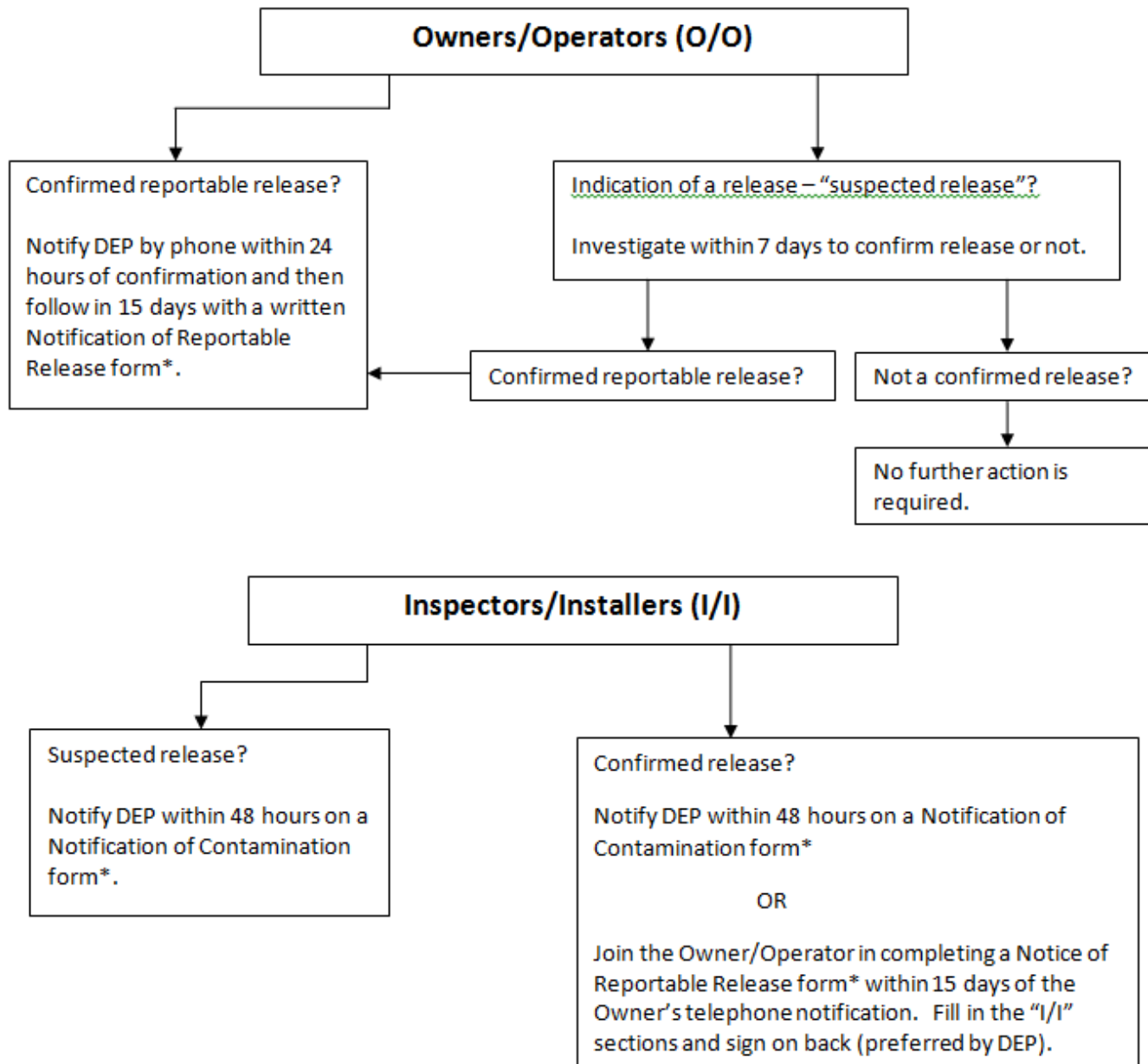
- (1) The presence of a regulated substance or an unusual level of vapors from a regulated substance of unknown origin at a storage tank facility.
- (2) Evidence of a regulated substance or vapors in soils, basements, sewer lines, utility lines, surface water or groundwater in the surrounding area.
- (3) Unusual operating conditions, indicative of a release, such as the erratic behavior of product dispensing equipment.
- (4) The sudden or unexpected loss of a regulated substance from a storage tank or the unexplained presence of water in a storage tank.

Standards of Performance

- (5) Test, sampling, or monitoring results from a release detection method which indicate a release.
- (6) The discovery of holes in a storage tank during activities such as inspection, repair or removal from service.
- (7) Other events, conditions or results which may indicate a release.



RELEASE REPORTING FLOW CHART



Standards of Performance

Reportable Release:

“A quantity or an unknown quantity of regulated substance released to or posing an immediate threat to surface water, groundwater, bedrock, soil or sediment.”



Standards of Performance

“A Reportable Release **DOES NOT INCLUDE** (if the owner or operator has control over the release, the release is completely contained and, within 24 hours of the release, the total volume of the release is recovered or removed) the following:

1. A release to an interstitial space of a double-walled aboveground or underground tank.
2. A release of petroleum to an aboveground surface that is less than 25 gallons.
3. A release of a hazardous substance to aboveground surface that is less than its reportable quantity under CERCLA.”

Standards of Performance

If a Department certified individual suspects a release of regulated substance, while performing services as a certified individual, they must submit a “Notification of Contamination” form, within 48 hours, to the appropriate regional office of the Department.

On the form, they should indicate a suspected release along with completing all of the certified individual’s sections of the form.

Standards of Performance

If a Department certified individual confirms that a reportable release has occurred while performing services as a certified individual, they have two options:

1. Submit a “Notification of Contamination” form to the appropriate regional office of the Department within **48 hours**. On the form, he should indicate a confirmed release along with completing all of the certified individual’s sections of the form; or

Standards of Performance

2. Submit the “Notification of Contamination” form jointly with the owner/operator of the facility within **15 days** of the owner/operator’s telephone notification to the appropriate regional office of the Department.

On the form, they should indicate a confirmed release along with completing all of the certified individual’s sections of the form.

Standards of Performance

COMMONWEALTH OF PENNSYLVANIA
DEPARTMENT OF ENVIRONMENTAL PROTECTION

2550-FM-BWM0082 Rev. 12/2008
BUREAU OF WASTE MANAGEMENT

NOTIFICATION OF REPORTABLE RELEASE (Owners and Operators)		<input type="checkbox"/> Initial <input type="checkbox"/> Follow-Up		
NOTIFICATION OF CONTAMINATION (Certified Installers and Inspectors)				
NOTIFICATION OF REPORTABLE RELEASE (Owners and Operators) The Storage Tank Program's Corrective Action Process (CAP) regulations establish release reporting requirements for owners and operators of storage tanks and storage tank facilities. Subsection 245.305(a) of the regulations requires owners or operators to notify the appropriate regional office of the Department as soon as practicable, but no later than 24 hours, after the confirmation of a reportable release. Subsection 245.305(d) requires owners or operators to provide an initial written notification to the Department, each municipality in which the reportable release occurred, and each municipality where that release has impacted environmental media or water supplies, buildings, or sewer or other utility lines, within 15 days of the notice required by Subsection 245.305(a). Subsection 245.305(e) requires owners or operators to provide follow-up written notification to the Department and to each impacted municipality of new impacts to environmental media or water supplies, buildings, or sewer or other utility lines discovered after the initial written notification required by subsection 245.305(d). Written notification is to be made within 15 days of the discovery of the new impact. This form may be used to comply with Subsection 245.305(d) and (e). OWNERS AND OPERATORS (O/O) INDICATE IF THIS IS AN INITIAL OR FOLLOW-UP NOTIFICATION BY MARKING THE APPROPRIATE BOX FOUND IN THE TOP RIGHT-HAND CORNER OF THIS FORM. PLEASE COMPLETE ALL INFORMATION IN SECTIONS I, II, IIIA, IIIB, IV, V, VII and VIII.		NOTIFICATION OF CONTAMINATION (Certified Installers and Inspectors) The Storage Tank Program's Certification regulations establish standards of performance for certified installers and inspectors of storage tanks and storage tank facilities. Subsection 245.132(a)(4) of the regulations requires certified installers and inspectors to report to the Department a release of a regulated substance or confirmed or suspected contamination of soil, surface or groundwater from regulated substances observed while performing services as a certified installer or inspector. This form may be used to comply with Subsection 245.132(a)(4). Subsection 245.132(a)(4) requires submission of the form within 48 hours of observing suspected or confirmed contamination. Where there is a reportable release, the form may be submitted jointly by the owner, operator, certified installer and certified inspector. In this instance, the form must be received by the appropriate regional office within 15 days of the notice required by Subsection 245.305(a). CERTIFIED INSTALLERS AND INSPECTORS (I/I) PLEASE COMPLETE ALL INFORMATION IN SECTIONS I, II, IIIA, IIIC, VI, VII and VIII.		
INSTRUCTIONS				
<p>I. FACILITY INFORMATION - Record the name, I.D. number and physical location (not P.O. Box) of the facility at which a reportable release has been confirmed or at which suspected or confirmed contamination has been observed. Include the name and phone number of a person to contact at the facility.</p> <p>II. OWNER/OPERATOR INFORMATION - Record the name, business address and phone number of the owner of the facility identified in Section I. Also, record the name and phone number of the operator of the facility.</p> <p>III. REGULATED SUBSTANCE INFORMATION - Indicate to the best of your knowledge: A) the type of product or products involved; B) the quantity of product or products released; and C) whether the contamination is suspected or confirmed.</p> <p>IV. REPORTABLE RELEASE INFORMATION - Record the date of confirmation of the reportable release, e.g., "9/18/01"; the date and regional office notified; and the date the local municipality(ies) [provide name of municipality(ies)] was/were sent a copy of this form. Indicate to the best of your knowledge the source/cause of the release, how the release was discovered and the environmental media affected and impacts.</p> <p>V. INTERIM REMEDIAL ACTIONS - Indicate the interim remedial actions planned, initiated or completed.</p> <p>VI. SUSPECTED/CONFIRMED CONTAMINATION INFORMATION - Record the date of observation of the suspected or confirmed contamination, e.g., "11/24/01". Indicate to the best of your knowledge the indications of a suspected release or extent of confirmed contamination resulting from the release of the regulated substance.</p> <p>VII. ADDITIONAL INFORMATION - Provide any additional, relevant, available information concerning the reportable release or suspected or confirmed contamination. Include in this section specific details or problems about the release. For example, if the piping was the source of the release and the cause was corrosion of a metal connector or flexible connector, it is important to include that information here. Use additional 8 1/2" x 11" sheets of paper, if necessary.</p> <p>VIII. CERTIFICATION - Please print your name, and provide your signature and date of signature. If a certified installer/inspector, provide certification number and company certification number.</p> <p>IX. ATTACHMENT - If a certified installer/inspector, provide a copy of failed valid tightness test(s), if applicable.</p> <p style="text-align: center;">PLEASE SEND COMPLETED ORIGINAL FORM TO: PA Department of Environmental Protection Environmental Cleanup Program Storage Tank Section (and the appropriate address below, depending on where the FACILITY is located)</p>				
Southwest Region 2 East Main Street Norristown, PA 19401 PHONE: 484-250-4900 FAX: 484-250-5961 Counties Bucks, Chester, Delaware, Montgomery, Philadelphia	Northeast Region 2 Public Square Wilkes-Barre, PA 18711-0790 PHONE: 570-826-2511 FAX: 570-820-4907 Counties Carbon, Lackawanna, Lehigh, Luzerne, Monroe, Northampton, Pike, Schuylkill, Susquehanna, Wayne, Wyoming	Southcentral Region 909 Elmerton Avenue Harrisburg, PA 17110 PHONE: 977-353-1904 FAX: 717-705-4830 Counties Adams, Bedford, Berks, Blair, Cumberland, Dauphin, Franklin, Fulton, Huntingdon, Juniata, Lancaster, Lebanon, Mifflin, Perry, York	Northcentral Region 208 W. Third Street, Suite 101 Williamsport, PA 17701 PHONE: 570-321-4925/327-3696 FAX: 570-327-3420 Counties Bradford, Cameron, Centre, Clinton, Clearfield, Columbia, Lycoming, Montour, Northumberland, Potter, Snyder, Sullivan, Tioga, Union	Northwest Region 226 Chestnut Street Meadville, PA 16335-3481 PHONE: 814-332-6945 800-373-3398 FAX: 814-332-6121 Counties Butler, Clarion, Crawford, Elk, Erie, Forest, Jefferson, Lawrence, McKean, Mercer, Venango, Warren



pennsylvania
DEPARTMENT OF ENVIRONMENTAL PROTECTION

Standards of Performance

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FACILITY I.D. NUMBER _____

I. FACILITY INFORMATION (Both O/O and I/I)		II. OWNER/OPERATOR INFORMATION (Both O/O and I/I)	
Facility Name _____	Facility I.D. Number _____	Owner Name _____	
Street Address (P.O. Box not acceptable) _____		Address _____	
City _____	State _____ Zip Code _____	City _____	State _____ Zip Code _____
	PA _____		
County _____	Municipality _____	Phone Number _____	
		() - _____	
Contact Person _____	Phone Number _____	Operator Name _____	Phone Number _____
	() - _____		() - _____

III. REGULATED SUBSTANCE INFORMATION

A. Type of Product(s) Involved (Mark All That Apply <input checked="" type="checkbox"/>): <u>Both O/O and I/I</u>	B. Quantity (Gallons) of Product(s) Released: <u>O/O Only</u>	C. Contamination Suspected [S] or Confirmed [C] (Mark All That Apply <input checked="" type="checkbox"/>): <u>I/I Only</u>
Leaded Gasoline <input type="checkbox"/> _ _ _ _ _	<input type="checkbox"/> [S] <input type="checkbox"/> [C]
Unleaded Gasoline <input type="checkbox"/> _ _ _ _ _	<input type="checkbox"/> [S] <input type="checkbox"/> [C]
Aviation Gasoline <input type="checkbox"/> _ _ _ _ _	<input type="checkbox"/> [S] <input type="checkbox"/> [C]
Kerosene <input type="checkbox"/> _ _ _ _ _	<input type="checkbox"/> [S] <input type="checkbox"/> [C]
Jet Fuel <input type="checkbox"/> _ _ _ _ _	<input type="checkbox"/> [S] <input type="checkbox"/> [C]
Diesel Fuel <input type="checkbox"/> _ _ _ _ _	<input type="checkbox"/> [S] <input type="checkbox"/> [C]
New Motor Oil <input type="checkbox"/> _ _ _ _ _	<input type="checkbox"/> [S] <input type="checkbox"/> [C]
Used Motor Oil <input type="checkbox"/> _ _ _ _ _	<input type="checkbox"/> [S] <input type="checkbox"/> [C]
Fuel Oil No. 1 <input type="checkbox"/> _ _ _ _ _	<input type="checkbox"/> [S] <input type="checkbox"/> [C]
Fuel Oil No. 2 <input type="checkbox"/> _ _ _ _ _	<input type="checkbox"/> [S] <input type="checkbox"/> [C]
Fuel Oil No. 4 <input type="checkbox"/> _ _ _ _ _	<input type="checkbox"/> [S] <input type="checkbox"/> [C]
Fuel Oil No. 5 <input type="checkbox"/> _ _ _ _ _	<input type="checkbox"/> [S] <input type="checkbox"/> [C]
Fuel Oil No. 6 <input type="checkbox"/> _ _ _ _ _	<input type="checkbox"/> [S] <input type="checkbox"/> [C]
Other (Specify) _____ <input type="checkbox"/> _ _ _ _ _	<input type="checkbox"/> [S] <input type="checkbox"/> [C]
Unknown <input type="checkbox"/> _ _ _ _ _	<input type="checkbox"/> [S] <input type="checkbox"/> [C]

Standards of Performance

2550-FM-BWM0082 Rev. 12/2008

FACILITY I.D. NUMBER _____

VIII. CERTIFICATION (Both O/O and I/I)	
<p>I, _____, hereby certify, under penalty of law as provided in 18 Pa. <div style="text-align: center;">(Print Name)</div> C.S.A. §4904 (relating to unsworn falsification to authorities) that I am the owner or operator of the above referenced storage tank facility and that the information provided by me in this notification is true, accurate and complete to the best of my knowledge and belief.</p> <div style="display: flex; justify-content: space-between; margin-top: 20px;"> <div style="width: 45%; border-top: 1px solid black; text-align: center;">Signature of Owner or Operator</div> <div style="width: 10%; border-top: 1px solid black; text-align: center;">/ /</div> <div style="width: 45%; border-top: 1px solid black; text-align: center;">Date</div> </div>	
<p>I, _____, hereby certify, under penalty of law as provided in 18 Pa. <div style="text-align: center;">(Print Name)</div> C.S.A. §4904 (relating to unsworn falsification to authorities) that I am the certified installer who performed tank handling activities at the above referenced storage tank facility and that the information provided by me in this notification is true, accurate and complete to the best of my knowledge and belief.</p> <div style="display: flex; justify-content: space-between; margin-top: 20px;"> <div style="width: 45%; border-top: 1px solid black; text-align: center;">Signature of Certified Installer</div> <div style="width: 10%; border-top: 1px solid black; text-align: center;">/ /</div> <div style="width: 45%; border-top: 1px solid black; text-align: center;">Date</div> </div> <div style="display: flex; justify-content: space-between; margin-top: 20px;"> <div style="width: 45%; border-top: 1px solid black; text-align: center;">Installer Certification Number</div> <div style="width: 10%; border-top: 1px solid black; text-align: center;"> </div> <div style="width: 45%; border-top: 1px solid black; text-align: center;">Company Certification Number</div> </div>	
<p>I, _____, hereby certify, under penalty of law as provided in 18 Pa. <div style="text-align: center;">(Print Name)</div> C.S.A. §4904 (relating to unsworn falsification to authorities) that I am the certified inspector who performed inspection activities at the above referenced storage tank facility and that the information provided by me in this notification is true, accurate and complete to the best of my knowledge and belief.</p> <div style="display: flex; justify-content: space-between; margin-top: 20px;"> <div style="width: 45%; border-top: 1px solid black; text-align: center;">Signature of Certified Inspector</div> <div style="width: 10%; border-top: 1px solid black; text-align: center;">/ /</div> <div style="width: 45%; border-top: 1px solid black; text-align: center;">Date</div> </div> <div style="display: flex; justify-content: space-between; margin-top: 20px;"> <div style="width: 45%; border-top: 1px solid black; text-align: center;">Inspector Certification Number</div> <div style="width: 10%; border-top: 1px solid black; text-align: center;"> </div> <div style="width: 45%; border-top: 1px solid black; text-align: center;">Company Certification Number</div> </div>	



Storage Tank Permitting

§ 245.203 – General Requirement for Permits

(f) The Department will automatically withhold or withdraw the operating permit for a storage tank that is reported... in temporary closure or temporary removal from service (out-of-service) status...

(g) A storage tank system may not be operated if the Department suspends, revokes or denies the tank operating permit. A person may not deliver or place a regulated substance in a tank if the Department suspends, revokes or denies the tank operating permit

Storage Tank Permitting

§ 245.222 – Application Requirements

- **Application for a General Operating Permit shall be submitted on a Department form...**
 - **Storage Tank Registration / Permitting Application Form**
 - **A one-page Storage Tank Registration Amendment Form is now available for use in making some changes.**

Site Specific Installation Permits

§ 245.231 – Scope

Site-specific installation permits are required *prior to* construction, reconstruction or installation...

- When adding an aboveground tank with a capacity greater than 21,000 gallons at an existing facility
- When installing tanks with an aggregate capacity greater than 21,000 gallons at a new AST facility
- New highly-hazardous storage tank systems
 - An AST or UST with a capacity greater than 1,100 gallons storing a highly hazardous substance
- New underground field constructed storage tank systems

Site Specific Installation Permits

Major Elements:

- Part I / Part II SSIP Application
- General Information Form
- Municipal & County Notification Letters (and Proof of Receipt)
- Siting – Floodplain, Wetlands
- Geology – if karst, deep-mined, or other geological issues, requires geotechnical analysis
- Mapping – plot plan, topographic map, wells within 2500' plotted
- Environmental Assessment – when required

- 30-day public notice in PA Bulletin required for new facilities (DEP handles this)

New Registration Certificate

- More inspection information
- Easily track inspection due dates
- Shows overdue inspections
- “TBD” indicates the next inspection due date will be determined once tank repairs are made

VERIFY PRESENCE OF WATERMARKED HOLD TO LIGHT TO VIEW

Commonwealth of Pennsylvania
Department of Environmental Protection
Bureau of Environmental Cleanup and Brownfields

STORAGE TANK REGISTRATION/PERMIT CERTIFICATE
EXPIRATION: FEB-04-2015

SEQ#	CAPACITY	SUBST	PERMIT TYPE	PERMIT STATUS	AST IN-SVC INSP DUE	AST OUT-OF-SVC INSP DUE	UST OPERATIONS INSP DUE	LINING INSP DUE
002A	2,497,572	GAS	GOP	Approved	06/18/2015	08/09/2025	*****	*****
003A	1,723,722	GAS	GOP	Approved	02/26/2014	04/14/2025	*****	*****
005A	2,300,760	OTHER	GOP	Withdrawn	*****	TBD	*****	*****
007A	4,707,570	OTHER	GOP	Withdrawn	08/27/2012	12/10/2017	*****	*****
008A	2,297,694	OTHER	GOP	Withdrawn	02/01/2014	01/31/2014	*****	*****
010A	4,708,410	FO6	GOP	Withdrawn	*****	*****	*****	*****
011A	5,043,066	OTHER	GOP	Withdrawn	TBD	*****	*****	*****
012A	2,268,000	HZSUB	GOP	Withdrawn	*****	*****	*****	*****
018A	8,736	OTHER	PBR	Approved	02/24/2019	*****	*****	*****

Client ID: [Redacted] Site ID: [Redacted]
 Owner: [Redacted] Facility Kind: [Redacted]
 Id: [Redacted] Facility Id: [Redacted]

WARNING: THIS DOCUMENT IS PRINTED ON SECURITY WATERMARK PAPER AND CONTAINS SECURITY FIBERS
 DO NOT ACCEPT WITHOUT VERIFYING THE PRESENCE OF THE WATERMARK

Storage Tank Closure

- **Closure Notification**
 - **Submit to Department regional office 30 days before scheduled date of removal – serves notice of intent to close or remove tank (USTs or Large ASTs)**
 - **This is a dual purpose form, also used to notify DEP of intent to install (USTs)**
- **Closure Report (USTs or Large ASTs)**
 - **When required the report is sent to the applicable Department regional office**
- **Registration/Permitting Application**
 - **The only way to remove tanks from system inventory**

▶ Delivery Prohibition

- **Lists are available on Storage Tank Web Site**
 - **Active tank list – no large ASTs or highly hazardous tanks**
 - **Suspended or revoked as a result of enforcement action**
 - **Tanks without operating permits**
- **Tanks in “T” (temporarily out of service) status**
 - **Tank must be empty**
 - **Operating permit withdrawn or withheld**

▶ Delivery Prohibition

September 28, 2011

**1,172 letters mailed regarding
regulated tanks:**

- ✓ **Product Distributors**
- ✓ **PPMCSA**
- ✓ **PA Farm Bureau**

Storage Tank Listings

**Storage Tanks Website → Registration →
Regulated Tank List**

**Excel spreadsheets (updated monthly)
or live search**

***Excludes large ASTs and
highly hazardous tanks**

Storage Tank Listings

Facility ID (99-99999) Zip Code

County Permit Status

Municipality

1 of 5 100% Find | Next

Bureau of Environmental Cleanup and Brownfields
Storage Tanks Search Results

6/5/2013 12:39:34 PM

Site ID: 453633 Client: 13067
 Other ID: 38-39466 Client Name: PA DEPT OF MILITARY & VETERANS AFFAIRS
 Name: AAFES FORT INDIANTOWN GAP Address: 1 FORT INDIANTOWN GAP BLDG 0-11
 Address: FISHER AVE BLDG 9-120 Address2:
 Address2: City: ANNVILLE
 City: ANNVILLE State: PA
 State: PA State: PA
 Zip: 17003 Zip: 17003-5099
 County: Lebanon
 Municipality Name: Union Twp
 Registration Expiration Date: 06/04/2014

SEQ NUMBER	TANK CODE	DATE INSTALLED	CAPACITY	SUB CODE	TANK STATUS	PERMIT TYPE	PERMIT STATUS	DATE LAST INSPECTION	NEXT INSPECTION DUE
934708 - 001	UST	10/19/2008	12,000	GAS	C	PBR	APPR	12/21/2010	FOI - 12/21/2013
934709 - 002	UST	10/19/2008	8,000	GAS	C	PBR	APPR	12/21/2010	FOI - 12/21/2013

Site ID: 579185 Client: 87584


Query parameters:

- Facility ID
- County
- Municipality
- Zip Code
- Permit Status

Tank listings now also include next insp. due and reg. exp. date.

Alternative Fuel Storage Tank Installation/Conversion Form

- All USTs, and ASTs used for motor vehicle fueling, storing:
 - Gasoline/alcohol blends greater than 10% alcohol (E15, E85)
 - Biodiesel blends greater than 5% biodiesel (B10, B20)
- Ensures compatibility of all system components

2630-FM-BECB0608 5/2014


COMMONWEALTH OF PENNSYLVANIA
 DEPARTMENT OF ENVIRONMENTAL PROTECTION
 BUREAU OF ENVIRONMENTAL CLEANUP AND BROWNFIELDS

ALTERNATIVE FUEL STORAGE TANK INSTALLATION/CONVERSION FORM

FOR DEP USE ONLY
 Reviewer _____
 Date _____

This form is to be completed and signed by the storage tank owner (or owner's representative) and DEP certified tank installer when installing a new storage tank system, or when converting an existing storage tank system, for storage of alternative fuel blends, such as gasoline-ethanol blends containing greater than 10% alternative fuel, or biodiesel or biodiesel blended fuel containing greater than 5% biodiesel. For aboveground storage tank systems, this form only applies to tank systems used for motor vehicle fueling. See the bottom of page 2 for the form submittal and recordkeeping requirements.

DEP recommends that UST owners and operators follow the procedural checklist provided in the Storage Tank Program Fact Sheet 2630-FS-DEP4447 *Underground Storage Tank (UST) Equipment Compatibility & Storage of Biofuels and Biofuel Blends*.

I. FACILITY INFORMATION – Type or print (in ink) all items. When completing this form for a new facility, omit the Facility ID.			
Facility ID#:		Facility Name:	
Facility Street Address:			
Facility Telephone:		County:	Municipality:
II (a). STORAGE TANK & PIPING INFORMATION – Sections II(a) and II(b) should be completed in full by the storage tank system owner and DEP certified tank installer. Type or print (in ink) all items. Provide the model/brand and equipment manufacturer for each storage tank system component. Write "NA" and check the corresponding box if the tank/piping/dispenser system does not have the component. Write "UNK" if the model/brand or equipment manufacturer cannot be determined. Check the appropriate box(es) to indicate whether or not the component has been confirmed by a Nationally Recognized Testing Laboratory (NRTL), such as Underwriters Laboratories (UL), and/or has been verified by the component manufacturer for use with the substance stored. Only check "No" if the component is neither NRTL listed nor manufacturer verified. Only one storage tank system per form may be listed. DEP will not approve an operating permit for an alternative fuel storage tank system with "unknown" components, or components that are neither NRTL listed nor manufacturer verified for use with the substance stored, unless a PA licensed professional engineer (P.E.) who has knowledge, experience, and training in materials science determines in his/her professional judgment that those components satisfy the compatibility requirements listed in the Storage Tank Regulations in 25 Pa Code, Chapter 245. The P.E. must sign the certifying statement in Section IV. DEP may request documentation supporting the P.E. determination.			
Tank Orientation: <input type="checkbox"/> Underground <input type="checkbox"/> Aboveground		Alternative Fuel Blend (>10%) Stored	
Capacity (gallons): _____ Date Installed: _____		<input type="checkbox"/> E15 <input type="checkbox"/> E85 <input type="checkbox"/> Other _____	
<input type="checkbox"/> New Tank <input type="checkbox"/> Existing Tank → DEP Tank #: _____		Biodiesel Blend (>5% biodiesel) Stored	
		<input type="checkbox"/> B10 <input type="checkbox"/> B20 <input type="checkbox"/> Other _____	
Component	Model / Brand	Equipment Manufacturer	NRTL Listed or Manufacturer Verified for the Stored Fuel
Storage Tank			<input type="checkbox"/> Listed <input type="checkbox"/> Verified <input type="checkbox"/> No <input type="checkbox"/> NA
Internal Tank Lining			<input type="checkbox"/> Listed <input type="checkbox"/> Verified <input type="checkbox"/> No <input type="checkbox"/> NA
ATG Probe, Float / Sensor			<input type="checkbox"/> Listed <input type="checkbox"/> Verified <input type="checkbox"/> No <input type="checkbox"/> NA
Tank Interstitial Sensor			<input type="checkbox"/> Listed <input type="checkbox"/> Verified <input type="checkbox"/> No <input type="checkbox"/> NA
Spill Bucket			<input type="checkbox"/> Listed <input type="checkbox"/> Verified <input type="checkbox"/> No <input type="checkbox"/> NA
Drop Tube			<input type="checkbox"/> Listed <input type="checkbox"/> Verified <input type="checkbox"/> No <input type="checkbox"/> NA
Overfill Auto Shut-off Valve			<input type="checkbox"/> Listed <input type="checkbox"/> Verified <input type="checkbox"/> No <input type="checkbox"/> NA
Ball Float Valve			<input type="checkbox"/> Listed <input type="checkbox"/> Verified <input type="checkbox"/> No <input type="checkbox"/> NA
Product Pipe Information: <input type="checkbox"/> New <input type="checkbox"/> Existing <input type="checkbox"/> Mixed (New & Existing)			
Product Pipe Configuration: <input type="checkbox"/> Single wall <input type="checkbox"/> Double wall			
Product Pipe			<input type="checkbox"/> Listed <input type="checkbox"/> Verified <input type="checkbox"/> No <input type="checkbox"/> NA
Pipe Fitting / Valve Material			<input type="checkbox"/> Listed <input type="checkbox"/> Verified <input type="checkbox"/> No <input type="checkbox"/> NA

Administrative Summary

- **Submit documents, reports, applications on current forms**
 - Tank handling activities within 30 days of completion
 - Inspection activities 60 days from date of inspection
 - Inspections as part of a project involving multiple certified individuals and certification categories should be submitted 30 days from completion of the project. Signature dates should never precede an install date!
- **Renew certification 60-120 days prior to expiration date**
 - Exceptions made for those applicants renewing by retest
- **You may not use activities to renew certification**
- **Requests for renewal of certification submitted more than 60 days beyond expiration date requires applicant to meet initial requirement for certification**

Administrative Summary

- **Uniform expiration date**
- **Certified companies and certified individuals share responsibility for all activities, and for the timely submission of all reports or project-related forms**
- **Certify safety training and application accuracy**
- **All tank handling or inspection activities involving non-certified employees or personnel are to be supervised by a certified installer or certified inspector with the applicable certification**
- **Do not sign tank handling or inspection documents unless you performed or supervised the certified activity**
- **Please don't refer tank owners to the Pollution Prevention Reimbursement Grant Program (pump & plug) without confirming eligibility**
- **Companies, pay TIIP fees!**
- **Labor & Industry – F&C permits when needed**

Storage Tanks Website

www.dep.state.pa.us

Environmental Cleanup & Brownfields →
Storage Tanks

Administrative Training Questions?

Certification Unit:

Anne Toth – 717.772.5808

Wendy Davis – 717.772.5829

Registration/Fees:

Sharon Peterson – 717.772.5817

SSIPs:

Eric Lingle – 717.783.2403

Aboveground Storage Tank Inspection

- Inspection Summary Forms
 - Ensure the most current are being utilized
 - Check AST part of DEP Division of Storage Tank Website
 - DEP will try to keep you updated if changes are implemented

Aboveground Storage Tank Inspection

2630-FM-BECB0150 Rev. 3/2013
FORM



Latest update

COMMONWEALTH OF PENNSYLVANIA
DEPARTMENT OF ENVIRONMENTAL PROTECTION
BUREAU OF ENVIRONMENTAL CLEANUP AND BROWNFIELDS

ABOVEGROUND STORAGE TANK INTEGRITY INSPECTION SUMMARY

<p>I. <u>Type of Inspection</u></p> <p><input type="checkbox"/> In-service</p> <p><input type="checkbox"/> Out-of-service</p> <p>Lining Inspection</p>	<p>II. <u>Inspection Date(s)</u></p> <p>Completion of this inspection _____</p> <p>Last in-service inspection _____</p> <p>Last out-of-service inspection _____</p>	<p>FOR DEP USE ONLY</p> <p>Reviewer _____</p> <p>Date _____</p> <p>Entered By _____</p> <p>Date _____</p>
<p>III. <u>Facility Information</u></p> <p>Facility I.D. Number XX-XXXXX _____</p> <p>Facility Name _____</p> <p>Facility Address _____</p> <p>_____</p> <p>Municipality _____</p>	<p>IV. <u>Inspector Information</u></p> <p>Name _____</p> <p>Certification number _____</p> <p>Phone A number that you can be reached _____</p> <p>Employer _____</p> <p>Employer certification number _____</p>	

Aboveground Storage Tank Inspection

V. Tank Identification

Owner's Tank

DEP Tank ID number 123_A ID Number _____

Nominal Capacity (gallons) NOT BARRELS!

Size: diameter _____(ft) length/height _____(ft)

Substance stored Current or proposed, if empty

Original construction code Must be AST

VI. Fire/Safety Permit

Number Is this AST on the permit?

Issuing Authority PA L&I? City? PASPFM?

Date Issued _____

- Horizontal Saddle Tank
- Vertical Tank
- Elevated Vertical Tank

- Shop Built
- Field Built

Check one box
in each column



pennsylvania

DEPARTMENT OF ENVIRONMENTAL PROTECTION

Aboveground Storage Tank Inspection

VII. Certified Inspector

I, the DEP Certified Inspector, have inspected the entire above referenced tank system. Based on my observation of the tank system, review of examination and tests results and information provided by the owner, I certify under penalty of law as provided in 18 Pa. C.S.A. Section 4904 (relating to unsworn falsification to authorities), that the information provided by me is true, accurate, and complete to the best of my knowledge and belief. I also certify that this tank system can cannot remain in service or be returned to service without additional evaluation or modification.

Only YOURS, signed by YOU!!!

Date Signed

Certified Inspector's Signature

Date

VIII. Owner or Owner's Representative I have reviewed the completed inspection report. I certify under penalty of law as provided in 18 PA C.S.A. Section 4904 (relating to unsworn falsification to authorities), the information provided by me is true, accurate, and complete to the best of my knowledge and belief.

Name (Please Print)

Title

Phone Number

Signature

Date

***Ensure owners reviewed/understand inspection, if they refused to sign, write that in the signature block.**

Aboveground Storage Tank Inspection

2630-FM-BECB0150 Rev. 3/2013
FORM

Facility ID XX — XXXXX

DEP Tank ID 123 A

Inspection Date _____

IX. **Evaluation of Tank System** Indicate the condition of the following components by marking the appropriate columns. If unsatisfactory explain deficiency in comment section.

<u>System component</u>	<u>Satisfactory</u>	<u>Unsatisfactory</u>		<u>Not Applicable</u>
			<u>Tank Cannot be Returned to Service</u>	
Foundation and tank supports	<input type="checkbox"/>		<input type="checkbox"/>	
Tank shell	<input type="checkbox"/>		<input type="checkbox"/>	
Tank roof	<input type="checkbox"/>		<input type="checkbox"/>	
Tank bottom/floor	<input type="checkbox"/>		<input type="checkbox"/>	<input type="checkbox"/>
Internal linings & coating, if installed	<input type="checkbox"/>		<input type="checkbox"/>	<input type="checkbox"/>
Method(s) used for nondestructive examination(s)	<u>Large AST bottoms need visual, UT, and 1 more (VB, MFE, etc.)</u>			

	<u>Satisfactory</u>	<u>Unsatisfactory</u>	<u>Tank Cannot be returned to service</u>	<u>Not Applicable</u>
External deterioration protection	<input type="checkbox"/>	<input type="checkbox"/>		
Appurtenances	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
Ancillary equipment (including piping)	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
Cathodic protection system, if installed	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

*Ensure any comments in Section XV. match this section. Always label each page with Facility ID, DEP Tank ID, and Inspection Date.

Aboveground Storage Tank Inspection

X. Calculated Information

1. Corrosion/deterioration rate: Tank Shell _____ (in/yr)
Tank Bottom _____ (in/yr)
Piping _____ (in/yr)
3. Service life based on corrosion rate:
Tank _____ (years)
Piping _____ (years)

Which method did you use to calculate the tank bottom service life?: API-653 Corrosion Rate

What was the retirement thickness for the calculation? (T-min or other endpoint) _____

2. Next inspection scheduled by:

If checked, the cannot remain in service box on page 1 should be checked

In-service _____ (mm/dd/yy)

Out-of-service _____ (mm/dd/yy)

- Next Inspection Dates to be Determined after
Repairs and before tank is returned to service

Calculate corrosion rates, service life and next inspection dates, unless the minimum acceptable thickness has been reached for that component. If repairs are completed subsequent to the inspection, the next inspection dates can be updated after the modifications.

➤ Calculation of service life (large ASTs)

- API 653 calculated service life method, **or**;
 - Based on minimum acceptable thickness for continued use (0.1 in. or 0.05 in. for bottom)
- the corrosion rate life
 - $\frac{1}{4}$ of the corrosion rate life with a maximum of 5 years for in-service inspection frequencies
 - $\frac{1}{2}$ of the corrosion rate life with a maximum of 20 years for out-of-service inspection frequencies

Aboveground Storage Tank Inspection

XI. Observations

1. Contamination observed/suspected: No Yes, Department notification form submitted on _____.
2. Does the tank have any perforations? No Yes
3. Is the tank system appropriately labeled? Yes No

XII. Record Review

1. Written operations and maintenance plan available on site: Yes No
2. Spill Prevention Response Plan is current and available on site: Yes No Not required
3. Owner/Operator monthly maintenance inspection record is available for the past twelve months: Yes No
4. Is this tank internally lined? Yes No No record available
5. Is a leak test required at the time of this inspection? Yes No
If so, did the test indicate a possible leak? Yes No What method was used? _____

Do not breeze through these sections. If available, you must review these records as part of your integrity inspection. If any of the required records aren't available, please note and comment about this.

Aboveground Storage Tank Inspection

Records

- Spill Prevention Response Plans (SPRPs) are required when the aggregate capacity of all regulated ASTs exceed 21,000-gallons
- Operation and maintenance plans are an integral part of the SPRP, and are also required for large storage tank facilities
- Leak tests are required for existing large ASTs without secondary containment, no cathodic protection, and no internal lining at every in-service integrity inspection

Aboveground Storage Tank Inspection

2630-FM-BECB0150 Rev. 3/2013
FORM

Facility ID _____

DEP Tank ID _____ A

Inspection Date _____

XIII. Tank Information

(1) Tank Construction

- A Single wall steel
- D Double wall steel
- E Single wall fiberglass
- F Double wall fiberglass
- R Single wall molded plastic
- S Single wall stainless steel
- 99 Other _____

(3) Aboveground Piping Construction

- A Steel
- D Fiberglass
- F PVC or Plastic
- L Stainless Steel
- 99 Other _____

(5) Pipe Release Detection Method

- G Visual inspection
- H None
- 99 Other _____

(7) Overfill Prevention

- Y Yes
- N No

(10) Tank Cathodic Protection

- B Galvanic
- C Impressed current
- N None

(16) Emergency Containment **Check records.**

- Meets permeability requirement
- Verified by a Registered Professional Engineer
- Containment present but does not meet requirements
- No containment structure
- Outer wall of a double walled tank

(17) Secondary Containment

- Impermeable layer: **material?** _____
- Space for release detection: **what space?** _____
- N None

(24) Normal Vent / Emergency Vent

- S Satisfactory
- U Unsatisfactory **Identify which vent if Unsatisfactory**

Aboveground Storage Tank Inspection

XIV. Double Walled Tanks If this is a double walled tank that relies solely on the outer wall for containment, please answer the following questions.

Is there spill prevention (Spill Bucket/Containment Box)? Yes No

Are there block valves on all product lines? Yes No

Is there a solenoid valve or antisiphon device? Yes No Not applicable

- This applies only to Small ASTs.
- Solenoid valve or anti-siphon device is only not applicable when all the piping never drops below maximum liquid level for the tank.

Aboveground Storage Tank Inspection

XV. Comments Describe any tank system deficiencies and note additional information discovered during the inspection. If additional comment sheets are needed, label each sheet with facility and tank identification numbers, inspection date and page number.

Describe any deficiencies here!

*Ensure comments match evaluation and observations sections of the AST Integrity Inspection Summary Form.

Aboveground Storage Tank Inspections

AST Integrity Inspection Summaries

- Ensure that the summaries are sent within 60-days of inspection date.
- Review thoroughly if you aren't filling out the forms, sign-off and submit when completed, see above.
- Do not sign the form unless you personally performed the integrity inspection.
- If tank is internally lined, please add the due date for the lining inspection to the form
- Changes to this form are forthcoming

▶ AST Integrity Inspection Summary - Exercise

AST In-service Integrity Inspection – Tank Details

Owner Tank ID#: 5223

Substance: Fuel Oil No. 2

Diameter: 80'

Height: 48'

Capacity: 41,000 barrels

Construction Date: 12/01/1978

Construction Standard: API 650

Last In-service Inspection: 02/26/2009

Last Out-of-Service Inspection: 04/14/2005

Single Bottom AST on ring wall

No Cathodic Protection

No internal lining



AST Integrity Inspection Summary Exercise

VERIFY PRESENCE OF WATERMARKED HOLD TO LIGHT TO VIEW

Commonwealth of Pennsylvania
 Department of Environmental Protection
 Bureau of Environmental Cleanup and Brownfields

STORAGE TANK REGISTRATION/PERMIT CERTIFICATE
 EXPIRATION: FEB-04-2015

SEQ#	CAPACITY	SUBST	PERMIT TYPE	PERMIT STATUS	AST IN-SVC INSP DUE	AST OUT-OF-SVC INSP DUE	UST OPERATIONS INSP DUE	LINING INSP DUE
002A	2,497,572	GAS	GOP	Approved	06/18/2015	08/09/2025	*****	*****
003A	1,723,722	HO	GOP	Approved	02/26/2014	04/14/2025	*****	*****
005A	2,300,760	OTHER	GOP	Withdrawn	*****	TBD	*****	*****
007A	4,707,570	OTHER	GOP	Withdrawn	08/27/2012	12/10/2017	*****	*****
008A	2,297,694	OTHER	GOP	Withdrawn	02/01/2014	01/31/2014	*****	*****
010A	4,708,410	FO6	GOP	Withdrawn	*****	*****	*****	*****
011A	5,043,066	OTHER	GOP	Withdrawn	TBD	*****	*****	*****
012A	2,268,000	HZSUB	GOP	Withdrawn	*****	*****	*****	*****
018A	8,736	OTHER	PBR	Approved	02/24/2019	*****	*****	*****

Client ID:
 Owner:
 Id:



Site ID:
 Facility Kind:
 Facility Id:

123456
 22-12345
 Capitol City Terminal
 1 William Penn Drive
 Harrisburg, PA 17100

WARNING: THIS DOCUMENT IS PRINTED ON SECURITY WATERMARK DO NOT ACCEPT WITHOUT VERIFYING THE PRESENCE OF THE WATERMARK

AST Integrity Inspection Summary Exercise

Some observations from your AST IS integrity inspection...

- Minor scattered coating failure on tank shell and associated piping
- No label that identifies regulated substance in tank
- Emergency containment, free of vegetation and debris, combustible material, excess water
- Emergency containment drain valve in closed position
- Vents on roof free of restrictions
- Tank gauging/overflow alarms functioning properly

AST Integrity Inspection Summary Completion

Record Review

- Monthly maintenance Checklist – Last 12 months available and owner followed up on needed items
- Spill Prevention Response Plan current
- Written operations and maintenance plan available (Part of SPRP)
- Compacted clay emergency containment study 05/12/2010 – all 18 data points from containment floor and walls $<1.0 \times 10^{-6}$ cm/sec for heating oil storage
- Leak test? Owner had no clue.

AST Integrity Inspection Summary Completion

Calculations

- Safe fill height – 36' 11"
- Out of plane survey – within limits per API 653
- Corrosion/deterioration rate
 - Tank Shell = 0.00015 in/yr
 - Piping = 0.0002 in/yr
- Service life based on corrosion rates – API 653
 - Tank = 50 years
 - piping = 50+ years

Facility ID 22 — 12345

DEP Tank ID 003 A

Inspection Date 11-19-2015

IX. Evaluation of Tank System Indicate the condition of the following components by marking the appropriate columns. If unsatisfactory explain deficiency in comment section.

System component	Satisfactory	Unsatisfactory		Not Applicable
		Returned to Service	Tank Cannot be	
Foundation and tank supports	<input checked="" type="checkbox"/>	<input type="checkbox"/>		
Tank shell	<input checked="" type="checkbox"/>	<input type="checkbox"/>		
Tank roof	<input checked="" type="checkbox"/>	<input type="checkbox"/>		
Tank bottom/floor	<input type="checkbox"/>	<input type="checkbox"/>		<input checked="" type="checkbox"/>
Internal linings & coating, if installed	<input type="checkbox"/>	<input type="checkbox"/>		<input checked="" type="checkbox"/>
Method(s) used for nondestructive examination(s) <u>UT, Visual</u>				

	Satisfactory	Unsatisfactory	Tank Cannot be returned to service	Not Applicable
External deterioration protection	<input type="checkbox"/>	<input checked="" type="checkbox"/>		
Appurtenances	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
Ancillary equipment (including piping)	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
Cathodic protection system, if installed	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>

X. Calculated Information

1. Corrosion/deterioration rate: Tank Shell 0.00015 (in/yr) 3. Service life based on corrosion rate:
 Tank Bottom _____ (in/yr) Tank 50 (years)
 Piping 0.0002 (in/yr) Piping 50+ (years)

Which method did you use to calculate the tank bottom service life?: API-653 Corrosion Rate

What was the retirement thickness for the calculation? (T-min or other endpoint) _____

2. Next inspection scheduled by:
 In-service 09/15/2020 (mm/dd/yy) Next Inspection Dates to be Determined after
 Out-of-service 04/14/2025 (mm/dd/yy) Repairs and before tank is returned to service

XI. Observations

1. Contamination observed/suspected: No Yes, Department notification form submitted on _____
 2. Does the tank have any perforations? No Yes
 3. Is the tank system appropriately labeled? Yes No

XII. Record Review

1. Written operations and maintenance plan available on site: Yes No
 2. Spill Prevention Response Plan is current and available on site: Yes No Not required
 3. Owner/Operator monthly maintenance inspection record is available for the past twelve months: Yes No
 4. Is this tank internally lined? Yes No No record available
 5. Is a leak test required at the time of this inspection? Yes No
 If so, did the test indicate a possible leak? Yes No What method was used? Not completed

Facility ID 22 — 12345

DEP Tank ID 003 A

Inspection Date 11-19-2015

XIII. Tank Information

(1) Tank Construction

- A Single wall steel
- D Double wall steel
- E Single wall fiberglass
- F Double wall fiberglass
- R Single wall molded plastic
- S Single wall stainless steel
- 99 Other _____

(3) Aboveground Piping Construction

- A Steel
- D Fiberglass
- F PVC or Plastic
- L Stainless Steel
- 99 Other _____

(5) Pipe Release Detection Method

- G Visual inspection
- H None
- 99 Other _____

(7) Overfill Prevention

- Y Yes
- N No

(10) Tank Cathodic Protection

- B Galvanic
- C Impressed current
- N None

(16) Emergency Containment

- Meets permeability requirement
- Verified by a Registered Professional Engineer
- Containment present but does not meet requirements
- No containment structure
- Outer wall of a double walled tank

(17) Secondary Containment

- Impermeable layer: _____
- Space for release detection: _____
- N None

(24) Normal Vent / Emergency Vent

- S Satisfactory
- U Unsatisfactory

XIV. Double Walled Tanks If this is a double walled tank that relies solely on the outer wall for containment, please answer the following questions.

Is there spill prevention (Spill Bucket/Containment Box)? Yes No

Are there block valves on all product lines? Yes No

Is there a solenoid valve or antisiphon device? Yes No Not applicable

XV. Comments Describe any tank system deficiencies and note additional information discovered during the inspection. If additional comment sheets are needed, label each sheet with facility and tank identification numbers, inspection date and page number.

Minor scattered coating failure on tank shell and piping.

Tank needs to be labeled with No. 2 Fuel Oil and NFPA Fire Diamond.

AST needs a leak test

▶ AST Modifications

- *Major Modifications – alters design and may affect integrity of AST system or facility; affects tank portion
- Minor Modifications – does not alter design and may affect integrity of AST system or facility; does not affect tank portion.
- Maintenance – does not alter design and does not affect integrity of AST system or facility.

*Always inspected

AST Modifications

- Storage Tank Modification/Maintenance Technical Guidance updated March 2014
- Read the definitions to assist category of repair
- Questionable repairs, please call AST Unit
- If inspection is needed for major modifications, involve appropriate AST inspector prior to repair and critical times
- 30-day submittal requirement for Modification Reports!

▶ AST Major Modifications

- Replacement or addition of tank shell plate(s)
- Repair or replacement of tank bottom
- Installation, repair or replacement of interior lining or coating
- Installation, replacement, or structural repair of the tank integral roof or of an internal floating roof
- New or additional piping runs or not like kind replacements within the containment
- Initial penetrations of tank shell, roof or bottom
- Installation of new containment structure

▶ AST Minor Modifications

- Excavations within the containment.
- Installation of spill containment, tank gauging, and vents for which the AST was designed and fitting exist on the shell or roof
- Repairs involving cutting or welding on piping runs or not like kind replacements downstream of the first control valve and within the emergency containment

▶ AST Maintenance Activities

- Tank painting, exterior coating, labeling
- Containment maintenance, surface coating, minor surface repair
- Like kind replacement of tank gauge
- Piping outside containment area
- AST cleaning not performed as part of a closure activity
- Replacement of threaded or flanged ancillary equipment located downstream of first isolation valve within emergency containment

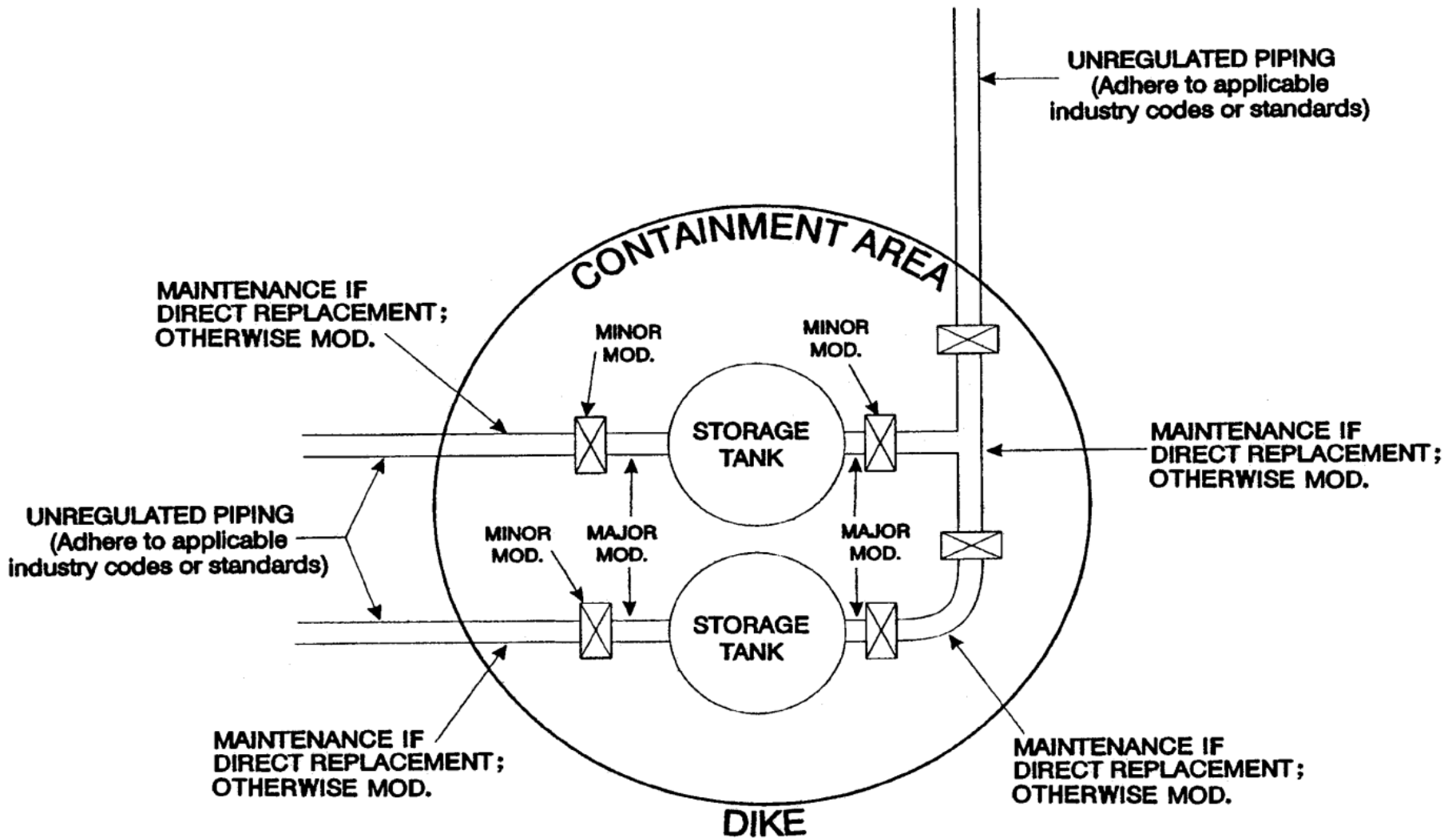


Figure from *Storage Tank Modification and Maintenance Issues*, update March 29, 2014



COMMONWEALTH OF PENNSYLVANIA
DEPARTMENT OF ENVIRONMENTAL PROTECTION
BUREAU OF ENVIRONMENTAL CLEANUP AND BROWNFIELDS

ABOVEGROUND STORAGE TANK MODIFICATION REPORT

I. FACILITY INFORMATION	OFFICIAL USE ONLY																					
Facility I.D. Number _____ Facility Name _____ Facility Address _____ _____ _____ Municipality _____ County _____	CO Review _____ Data Entry _____ RO Review _____	<table border="1"> <thead> <tr> <th>INITIAL</th> <th>DATE</th> </tr> </thead> <tbody> <tr> <td>_____</td> <td>_____</td> </tr> <tr> <td>_____</td> <td>_____</td> </tr> <tr> <td>_____</td> <td>_____</td> </tr> </tbody> </table>	INITIAL	DATE	_____	_____	_____	_____	_____	_____												
INITIAL	DATE																					
_____	_____																					
_____	_____																					
_____	_____																					
II. TANK INFORMATION – Information Obtained from Registration Certificate? <input type="checkbox"/> Yes <input type="checkbox"/> No																						
Tank ID Number _____ A Owner Tank Number _____ Tank Capacity (gallons) _____ Substance Stored _____ Where was the tank assembled? <input type="checkbox"/> Field Constructed <input type="checkbox"/> Manufactured (Shop Built) Tank configuration <input type="checkbox"/> Horizontal <input type="checkbox"/> Vertical <input type="checkbox"/> Elevated Vertical Tank Construction Code _____																						
III. TANK MODIFICATION INFORMATION																						
<div style="border: 2px solid red; padding: 2px;"> Was this modification work performed to correct deficiencies discovered during an inspection? <input type="checkbox"/> Yes <input type="checkbox"/> No </div>																						
Tank modification is in accordance with manufacturer's specifications, engineer's design criteria, current industry standards and complies with the Fire Safety Requirements for flammable and combustible liquids (if applicable). If no, explain all irregularities in the comment section. <input type="checkbox"/> Yes <input type="checkbox"/> No Modification standard _____																						
IV. INSTALLER INFORMATION (Please Type or Print Clearly)																						
<table border="1"> <thead> <tr> <th>Installer Name</th> <th>Certification Number</th> <th>Certification Category Used</th> <th>Company Name</th> <th>Company Certification</th> </tr> </thead> <tbody> <tr> <td>_____</td> <td>_____</td> <td>_____</td> <td>_____</td> <td>_____</td> </tr> <tr> <td>_____</td> <td>_____</td> <td>_____</td> <td>_____</td> <td>_____</td> </tr> <tr> <td>_____</td> <td>_____</td> <td>_____</td> <td>_____</td> <td>_____</td> </tr> </tbody> </table>	Installer Name	Certification Number	Certification Category Used	Company Name	Company Certification	_____	_____	_____	_____	_____	_____	_____	_____	_____	_____	_____	_____	_____	_____	_____		
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_____	_____	_____	_____	_____																		
_____	_____	_____	_____	_____																		
_____	_____	_____	_____	_____																		
V. INSTALLER CERTIFICATION																						
This Section must be completed by the certified installer(s) for tank handling activities performed on aboveground storage tank systems. By signing below, the certified installer verifies that the tank handling activity was conducted in compliance with the design, installation, modification and operation standards of Act 32 and applicable regulations. The signature also certifies, under penalty of law as provided in 18 PA C.S.A. Section 4904 (relating to unsworn falsification to authorities), that the information provided is true, accurate, and complete to the best of his/her knowledge and belief.																						
_____ _____ _____	_____ _____ _____	_____ _____ _____																				
<div style="border: 2px solid red; padding: 2px;">Date(s) Work Completed</div>	_____ Installer's Signature(s)	_____ Date(s) of Signature																				

Modification Reports must be submitted to PA DEP within 30 days of the completion of the Activity(s)

VI. TANK SYSTEM COMPONENTS – (Only check the blocks for modified or newly installed component(s))

- | | |
|---|--|
| <p>(1) Tank</p> <p><input type="checkbox"/> I Liner Modification/Installation</p> <p><input type="checkbox"/> K Modification of tank bottom</p> <p><input type="checkbox"/> L Modification of tank shell</p> <p><input type="checkbox"/> M Modification of tank roof</p> <p><input type="checkbox"/> Q Double bottom (explain) _____</p> <p><input type="checkbox"/> 99 Other (explain) _____</p> <p>(3) Aboveground Piping</p> <p><input type="checkbox"/> New Piping Run - Piping Material: _____
(A, B, D, E, I, J, K)</p> <p><input type="checkbox"/> H Modification of existing piping</p> <p><input type="checkbox"/> 99 Other (explain) _____</p> <p>(5) Pipe Release Detection (AST's in Vaults)</p> <p><input type="checkbox"/> Y Installed/modified</p> <p>(6) Spill Prevention (Spill Bucket/Containment Box)</p> <p><input type="checkbox"/> Y Installed/modified</p> <p>(7) Overfill Prevention</p> <p><input type="checkbox"/> Y Installed/modified</p> | <p>(10) Tank Cathodic Protection</p> <p><input type="checkbox"/> B Galvanic</p> <p><input type="checkbox"/> C Impressed current</p> <p>(12) Tank Release Detection</p> <p><input type="checkbox"/> E Automatic tank gauge</p> <p><input type="checkbox"/> H Interstitial monitor</p> <p><input type="checkbox"/> L Grooves made in the impermeable pad</p> <p><input type="checkbox"/> M Slotted pipe above the impermeable pad</p> <p><input type="checkbox"/> 99 Other (explain) _____</p> <p>(16) Emergency Containment</p> <p><input type="checkbox"/> Y Installed/modified</p> <p>(17) Secondary Containment</p> <p><input type="checkbox"/> Y Installed/modified</p> <p>(24) Normal Vent / Emergency Vent</p> <p><input type="checkbox"/> Y Installed/modified</p> |
|---|--|

VII. DETAILED SCOPE OF WORK AND ANY ADDITIONAL COMMENTS:



VIII. INSPECTOR INFORMATION

A modification inspection is required when a major modification is performed on an aboveground tank greater than 21,000 gallons in capacity. A modification inspection is also required on small aboveground field constructed tanks when a major modification is performed to the tank shell or tank bottom. Is an inspection required for this activity? Yes No

If yes, was the inspector involved prior to the initiation of the project and present at critical times? Yes No

Inspector
Name

Certification
Number

Inspection
Category

Company
Name

Company
Certification No.

When a major modification is performed, the inspector must be involved prior to the initiation of the project and present at critical times. Section VIII. must be completed. Identify yourself and give contact information to the installer.

AST Modification Inspections

Modification Inspections

- Required when a major modification is performed on a large AST (>21,000-gallons), and on a small field constructed AST shell or bottom (>250 to 21,000-gallons).
- IAMs cannot perform modification inspections of aboveground field constructed storage tank systems
- 60-day submittal requirement, but try to get in sooner, preferably within 30-days

AST Modification Inspections

Modification Inspections

- When substantial modifications are made to the tank floor, the next inspections date projections shall be determined based on the condition of the tank subsequent to those modifications as reported to the Department by the certified inspector on the appropriate inspection form provided by the Department (§245.554 Installation and modification inspections)
 - Still utilize the initial out-of-service inspection date as starting point for projecting next inspection interval, unless the entire tank floor is being replaced.

AST Modification Inspections

Modification Inspection Scenario 1

The AST modification inspection covers AST bottom patch plates (seven) and puddle welds (12 areas) on existing AST bottom that had isolated areas of pitting on product side, as well as soil side corrosion. These areas of corrosion were identified on during a **09/13/2014** OS integrity inspection. At the time of the OS inspection, the corrosion rate and remaining service life calculations resulted in a shortened OS inspection interval of 11.4 years. Before placing the tank back into service the facility owner opted to have their AST bottom repaired to extend service life and next inspection intervals. Based on the repairs and existing corrosion rates, the new service life calculations and OS integrity inspection interval were greater than 20 years. What would the next OS inspection date be if your modification inspection was today?

AST Modification Inspections

Modification Inspection Scenario 1

The next out-of-service integrity inspection due date of **09/13/2034** would be given because that is when the ultrasonic thickness gauge and other non-destructive examination measurements were taken. Furthermore, the maximum interval between out-of-service inspection intervals is 20 years according to the Pennsylvania Storage Tank Regulations.

AST Modification Inspections

Modification Inspection Scenario 2

The AST modification inspection covers the installation of a new AST bottom. The original inspection conducted on **11/26/2014** identified that 60% of the tank floor has corroded beyond 0.1" (minimum acceptable thickness). The owner elected to have a new bottom installed over the existing bottom that was covered with a HDPE liner. Sand was poured between the existing bottom and new bottom and installed with leak detection ports in accordance with API 650 Appendix I. Taking into account the corrosion rates of the existing bottom and new 0.250" carbon steel, lap welded bottom, the expected service life of this tank is greater than 20 years.

If your inspection was **today**, when will the next OS integrity inspection be due?

AST Modification Inspections

Modification Inspection Scenario 2

The next out-of-service integrity inspection due date of **11/19/2025**. A 10 year maximum interval would be given due to the unknown corrosion rate of the new bottom. It has been the Department's position that existing corrosion rates from old tank bottoms cannot be utilized for new AST bottoms. This is explained in Section 245.553(e)(2)(i) in the PA Storage Tank Regulations.

AST Modification Inspections

Modification Inspection Scenario 3

The AST modification inspection covers the installation of an internal tank lining over the existing tank bottom and 18” up the shell. This tank was installed on **02/01/2005**. This AST had an OS integrity inspection completed on **01/23/2015** by another PADEP-certified inspection company. The API 653 internal inspection reported that corrosion rates for the tank bottom and shell were relatively low (0.00012 in/yr), and the overall condition of the tank bottom was excellent with over 50 years of remaining service life.

What are the next required AST inspection dates for this AST, if your lining inspection was **today**?

AST Modification Inspections

Modification Inspection Scenario 3

The next integrity inspection dates would be as follows:

- Out-of-Service Integrity Inspection: **01/23/2035** (20 years from previous OS Inspection)
- In-Service Integrity Inspection: **01/23/2020** (5 years from previous OS inspection)
- Lining Inspection: **11/19/2025***

*Maximum interval for a lining inspection is 10 years or as warranted or recommended by the manufacturer or design engineer.



ABOVEGROUND STORAGE TANK MODIFICATION INSPECTION SUMMARY

<p>I. <u>Inspection Date(s)</u></p> <p>_____</p> <p>_____</p>	<p style="text-align: center;">FOR DEP USE ONLY</p> <p>Reviewer _____ Date _____</p> <p>Entered By _____ Date _____</p>
<p>II. <u>Facility Information</u></p> <p>Facility ID number _____</p> <p>Facility Name _____</p> <p>Facility Address _____</p> <p>_____</p> <p>Municipality _____</p>	<p>III. <u>Inspector Information</u></p> <p>Name _____</p> <p>DEP Inspector Certification Number _____</p> <p>Inspection Category _____</p> <p>Phone () _____</p> <p>Employer _____</p> <p>DEP Company Certification Number _____</p>
<p>IV. <u>Tank Identification</u></p> <p>DEP Tank ID number ____A Owner Tank ID Number _____</p> <p>Capacity (gallons) _____</p> <p>Tank Configuration: <input type="checkbox"/> Horizontal <input type="checkbox"/> Shop Built</p> <p> <input type="checkbox"/> Vertical <input type="checkbox"/> Field Built</p> <p> <input type="checkbox"/> Vertical Elevated</p> <p>Construction Code _____</p> <p>Substance stored _____</p> <p>Size: diameter _____ (ft) length/height _____ (ft)</p>	<p>V. <u>Permit Information</u></p> <p>Fire/Safety Permit Number _____</p> <p>Issuing Authority _____</p> <p>Date Issued _____</p> <hr/> <p>VI. <u>Next Integrity Inspections (If applicable)</u></p> <p>In-Service _____ (mm/dd/yy)</p> <p>Out-of-Service _____ (mm/dd/yy)</p> <p style="color: red; font-weight: bold; font-size: 1.2em;">Lining</p>

Facility ID _____ DEP Tank ID _____ A Inspection Date _____

IX. <u>Installer Information</u>			
Installer Name	Certification Number	Company Name	Company Certification
_____	_____	_____	_____
_____	_____	_____	_____
_____	_____	_____	_____

X. Description of Modifications. What modification work was inspected?

- New bottom – describe configuration _____
- Repaired bottom _____
- Added or repaired internal lining _____
- Modification of shell _____
- Modification of roof _____
- Added or repaired nozzle(s) – where? _____
- Modification of containment structure(s) _____
- Other - explain _____

List **all** the installers and their information, as well as what you inspected in these sections. Elaborate on these descriptions, if needed, in the comments section.

XI. Evaluation of Modifications:

Was the welding completed in accordance with industry practices and performed by an appropriately qualified welder?

Yes No Not Applicable

Was the tank modification performed in accordance with manufacturer's specifications, engineer's design criteria and current industry standards? If no, explain all deficiencies in Section XII. Yes No

Was the nondestructive testing performed in accordance with industry codes and practices by a properly qualified individual with the test results indicating no deficiencies? Yes No

Were you, as the DEP certified inspector, involved prior to the initiation of the modifications and present at critical times?

Yes No

If this modification was in response to an integrity inspection, were all of the inspector's recommendations addressed?

Yes No Not Applicable

If no, what is still unfinished? _____

Present at critical times? This is not a documentation review, a take your word for it scenario, or an, "I know this welder does everything by the book, and has never made a mistake in their life". The AST inspector must be involved and PRESENT in order to reliably determine that the following were met:

- 1) Industry standards and project specs. were followed throughout the tank handling activity.
- 2) Appropriate testing and NDE were properly conducted
- 3) The tank is suitable for operational service.

AST Installation Inspections

Installation Inspections

Required for:

1. Large (manufactured and field constructed) AST construction, reconstruction, relocation
2. Small field constructed AST construction, reconstruction, relocation

Not required for:

1. Small ($\leq 21,000$ -gallons) manufactured ASTs
2. Uncertified Installs
 - Tanks 5,000-gallons or less (AMMX/IAM/IAF can verify installation)
 - Tanks $>5,000$ -gallons (IS integrity inspection needs to be completed)
 - Tanks $>21,000$ -gallons (OS integrity inspection needs completed)

Installation Inspections

- AST inspectors must be involved prior to the initiation of a project and present at critical times.
- AST systems shall be inspected by a DEP-certified inspector at the time of installation in accordance with § 245.522 (relating to new AST installations and reconstructions)...
- The inspection report shall be kept for the operational life of the tank

Installation Inspections

- Comprehensive evaluation of tank system
- Field constructed ASTs are hydrostatically tested.
- Alternative test for tightness
- Non-destructive testing



ABOVEGROUND STORAGE TANK INSTALLATION INSPECTION SUMMARY

<p>I. Reason for Inspection</p> <p><input type="checkbox"/> New tank system</p> <p><input type="checkbox"/> Relocated tank system</p> <p><input type="checkbox"/> Uncertified installation</p>	<p>II. Inspection Date(s)</p> <p>_____</p> <p>_____</p> <p>_____</p>	<p style="text-align: center;">FOR DEP USE ONLY</p> <p>Reviewer _____</p> <p>Date _____</p> <p>Entered By _____</p> <p>Date _____</p>
<p>III. Facility Information</p> <p>Facility I.D. Number _____</p> <p>Facility Name _____</p> <p>Facility Address _____</p> <p>_____</p> <p>Municipality _____</p>	<p>IV. Inspector Information</p> <p>Name _____</p> <p>DEP Inspector Certification Number _____</p> <p>Inspection Category _____</p> <p>Phone () _____</p> <p>Employer _____</p> <p>DEP Company Certification Number _____</p>	
<p>V. Tank Identification</p> <p style="text-align: center;">Owner Tank</p> <p>DEP Tank ID number ____A ID Number _____</p> <p>Capacity (gallons) _____</p> <p>Tank Configuration: <input type="checkbox"/> Horizontal <input type="checkbox"/> Shop Built</p> <p style="padding-left: 40px;"><input type="checkbox"/> Vertical <input type="checkbox"/> Field Built</p> <p style="padding-left: 40px;"><input type="checkbox"/> Elevated Vertical</p> <p>Construction Code _____</p> <p>Substance stored _____</p> <p>Size: diameter _____ (ft) length/height _____ (ft)</p>	<p>VI. Permit Information</p> <p>DEP Site Specific Installation Permit Number _____</p> <p>Fire/Safety Permit Number _____</p> <p>Issuing Authority _____</p> <p>Date Issued _____</p>	<p>VII. Next Integrity Inspections (If applicable)</p> <p>In-Service _____ (mm/dd/yy)</p> <p>Out-of-Service _____ (mm/dd/yy)</p>
<p>VIII. Certified Inspector</p> <p>I, the DEP Certified Inspector, have inspected the above referenced tank system. Based on my observation of the tank system, review of examination and tests results and information provided by the owner, I certify under penalty of law as provided in 18 Pa. C.S.A. Section 4904 (relating to unsworn falsification to authorities), that the information provided by me is true, accurate, and complete to the best of my knowledge and belief.</p> <p style="text-align: center;">_____</p> <p style="text-align: center;">Certified Inspector's Signature _____ Date</p>		
<p>IX. Owner or Owner's Representative</p> <p>I have reviewed the completed inspection report. I certify under penalty of law as provided in 18 PA C.S.A. Section 4904 (relating to unsworn falsification to authorities), the information provided by me is true, accurate, and complete to the best of my knowledge and belief.</p> <p style="text-align: center;">_____</p> <p style="text-align: center;">Name (Please Print) _____ Title _____ Phone Number _____</p> <p style="text-align: center;">_____</p> <p style="text-align: center;">Signature _____ Date</p>		

Facility ID _____ - _____ DEP Tank ID _____ A Inspection Date _____

X. Installer Information			
Installer Name	Certification Number	Company Name	Company Certification
XI. Evaluation of Tank System Enter the condition of the following components by marking the appropriate blocks.			
	Satisfactory	Unsatisfactory	Not Applicable
Materials meet specifications	<input type="checkbox"/>	<input type="checkbox"/>	
Foundation and tank supports	<input type="checkbox"/>	<input type="checkbox"/>	
Welding (procedure, qualification)	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Tank construction (floor, shell, and roof)	<input type="checkbox"/>	<input type="checkbox"/>	
Appurtenances	<input type="checkbox"/>	<input type="checkbox"/>	
Ancillary equipment (including piping)	<input type="checkbox"/>	<input type="checkbox"/>	
Normal venting	<input type="checkbox"/>	<input type="checkbox"/>	
Emergency venting	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Secondary containment (under the tank bottom)	<input type="checkbox"/>	<input type="checkbox"/>	
Please describe:			
Emergency containment design & permeability	<input type="checkbox"/>	<input type="checkbox"/>	
Cathodic Protection	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Internal lining/coating	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
External coating & labeling	<input type="checkbox"/>	<input type="checkbox"/>	
Overfill prevention (gauge, HLA, & automatic shut off or manned operating procedure)	<input type="checkbox"/>	<input type="checkbox"/>	
Hydrostatic test	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Alternative test for tightness	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Nondestructive testing (procedure, qualifications)	<input type="checkbox"/>	<input type="checkbox"/>	
Fire Safety Standards	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Operations & Maintenance plan	<input type="checkbox"/>	<input type="checkbox"/>	
Spill Prevention & Response Plan	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<input type="checkbox"/> Yes <input type="checkbox"/> No Tank installation is in accordance with manufacturer's specifications, engineers design criteria and current industry standards. If no, explain all deficiencies in Section XII.			
XII. Comments Describe any tank system deficiencies and note additional information discovered during the inspection. If additional comment sheets are needed, label each sheet with facility and tank identification numbers, inspection date and page number.			

ASTs Inspection Summary

Capacity (gallons)	Installation Inspection	In-service Inspection	Out-of-service Inspection	Modification Inspection	Internal Liner Insp.
251 – 1,100	Field Constructed	-	-	Field Constructed	10 years
1,101 – 5,000	Field Constructed	-	-	Field Constructed	10 years
1,101 – 5K (high. haz.)	Field Constructed	10 years from install	-	Field Constructed	10 years
5,000 – 21,000	Field constructed	10 years from install	-	Field Constructed	10 years
>21,000 (elevated)	All	5 years from install	-	All	10 years
>21,000	All	5 years from install	10 years from install	All	10 years

* These are initial intervals. Subsequent inspection schedules are based on the condition of the tank at the time of the inspection, as well as corrosion, deterioration, and site-specific conditions that may necessitate more frequent intervals.

Common AST Inspection Violations

Top 3 Aboveground Storage Tank Integrity Inspections Violations in PA

#1 Performance/Design standards Violations (paint, label, vents, etc.)

#2 Monthly Maintenance Check Violations

#3 AST Containment Violations

What is common theme here?

Common AST Inspection Violations

Monthly Operation and Maintenance Checks




▶ AST Monthly Operations and Maintenance Checks

Monthly Operations and Maintenance Checks

1. A visual examination of the tank system for deterioration.
2. A check of the containment area for accumulation of water and removal of water as necessary.
3. Confirmation that containment drain valves are secured in the closed position when not in use.
4. Monitoring of the leak detection system.
5. A check of vents for restrictions.
6. A check of ancillary equipment for operational malfunctions.
7. An investigation of conditions that may be a fire or safety hazard, or pose an environmental hazard.
8. Observation for evidence of a release of regulated substance from the tank system.

AST Monthly Operations and Maintenance Checks

2630-FM-BECB0170 2/2012

 **pennsylvania**
DEPARTMENT OF ENVIRONMENTAL PROTECTION

COMMONWEALTH OF PENNSYLVANIA
DEPARTMENT OF ENVIRONMENTAL PROTECTION
BUREAU OF ENVIRONMENTAL CLEANUP AND BROWNFIELDS

**SAMPLE MONTHLY MAINTENANCE OPERATION CHECKLIST
FOR OWNERS OF SMALL ABOVEGROUND STORAGE TANKS**

ITEM	SYMBOL	REFERENCE
I. Visual Check for Deterioration		
Condition of tank exterior	S U	_____
Condition of aboveground piping	S U	_____
Condition of foundations and supports	S U	_____
Condition of containment structures	S U	_____
II. Containment Areas		
Level of standing water in containment	S U	_____
Drain Valves secured in a closed position	Y N	_____
Debris or fire hazard in containment	Y N	_____
III. Leak Detection System		
Leak detection system monitored	Y N	_____
Regulated Substance in containment area	Y N	_____
Evidence of release from tank	Y N	_____
Evidence of release from ancillary equipment including piping	Y N	_____
IV. Ancillary Equipment		
Overflow prevention device functioning properly (if installed)	Y N	_____
Valves functioning properly	Y N	_____
Vents clear of restrictions	Y N	_____
Gauge or monitoring device functioning properly (if installed)	Y N	_____
V. Safety Precautions		
Safety equipment in place and operative	Y N	_____
Fire extinguishers in place	Y N	_____
Safety precautions posted	Y N	_____
Tank system secured to prevent vandalism and unauthorized use	Y N	_____

Facility I.D.# _____ Inspection Completed By: _____ Date: _____

Comments: _____

Symbols

S - Satisfactory U - Unsatisfactory Y - Yes N - No

AST Monthly Operations and Maintenance Checks

Record Keeping Requirements

Monthly leak detection records and maintenance checklists shall be maintained for the previous 12 months.



AST Monthly Operations and Maintenance Checks

Other Items to Consider

- Aboveground storage tank grounding/bonding /lightning protection
- Fuel monitoring (check for presence of water/microbes)
- Cathodic Protection Rectifiers
- Thermal and pressure relief systems
- Insulated ASTs – check for areas of moisture, external corrosion
- Follow-up on Unsatisfactory and/or Required items

Common AST Inspection Violations

Emergency Venting

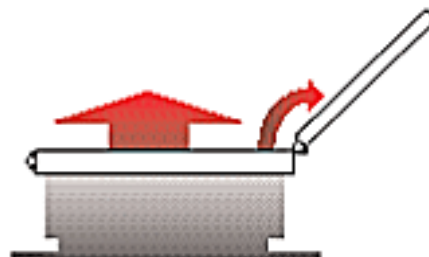
Common Problems

1. Inadequate design – too small, wetted area calculations
2. Not functioning – shear pin replaced, won't lift
3. Long bolt manholes – needs to have the ability to lift
4. Frangible roof – won't work for smaller diameter ASTs
5. Double walled tanks – Primary and secondary both need e-vents



Pop-Up Style

Weight of lid determines pressure setting (8 oz., 12 oz., 16 oz.) . Metal-to-metal seat or O-ring seat.



Flip-Up Style

Latch releases at set pressure, spring loaded hinge lifts lid open.



Long Bolt Manhole

Lid is able to lift under excess pressure. Vapors exit out opening.



Weak Roof-to-Shell Tank

Special joint designed to let go under excessive pressure.

Common AST Inspection Violations

Emergency Venting – Is it needed, and is it present?



Secondary Containment

Secondary containment shall be provided on a new tank at installation, on an existing tank at reconstruction or relocation, or when the tank floor is replaced. (space for detection of a release)

- permeability must be less than 1.0×10^{-7} cm/sec
- must be designed to direct any release to a monitoring point to meet leak detection requirements.
- existing ASTs without secondary containment and no cathodic protection or internal lining must be leak tested at each in-service integrity inspection until the tank is upgraded.

Emergency Containment

Verify permeability and capacity...



Emergency Containment

Large AST Containments

Emergency containment must be able to contain 110% of the capacity of the largest AST in the containment area.

AND

Permeability of new and replacement emergency containment must be 1.0×10^{-6} cm/sec.

Existing emergency containment structures must meet the requirements for new/replacement structures.

OR

Verification by a PE that the containment structure permeability, coupled with a monitoring program and response plan, is capable of detecting and recovering a release.

Common AST Inspection Violations

Emergency Containment

245.612(d) – Emergency containment must be sufficiently impermeable to contain any potential release for a minimum of 72 hours and until the release can be detected and fully recovered in an expeditious manner.



Common AST Inspection Violations

Emergency Containment

Will it even hold rain for any period of time?



Common AST Inspection Violations

Emergency Containment

Will a cement block wall hold the contents of a catastrophic release?



Common AST Inspection Violations

Emergency Containment - Excessive Vegetation

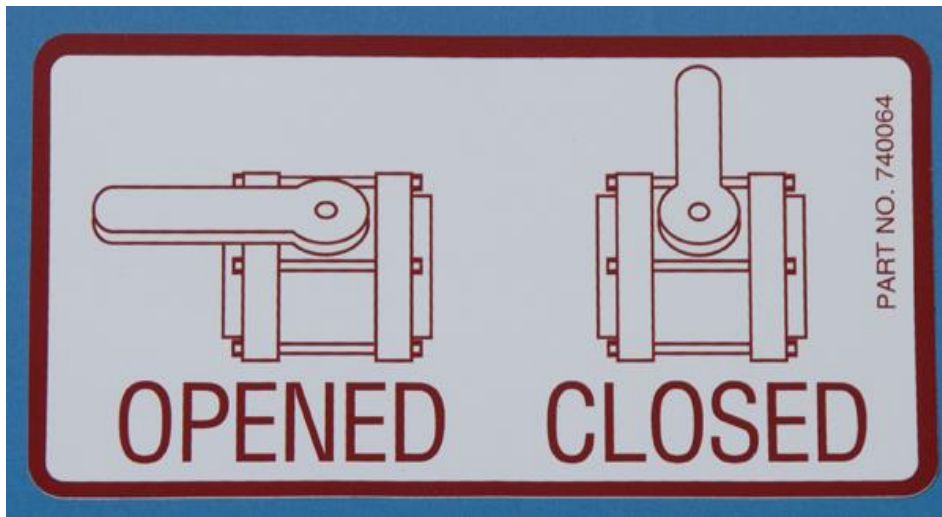
May 2013

July 2013



Common AST Inspection Violations

Emergency Containment - Valves



Common AST Inspection Violations

Emergency Containment – Valves



Common Inspection Violations

Emergency Containment – Structures to prevent accumulation of storm water.

What is wrong here?



Common AST Inspection Violations

Emergency Containment – Spill and Overfill protection?

Single Walled UL 142 Tank with Rain shields



▶ AST system exterior coating

§ 245.533 and §245.612(g) The exterior surfaces of aboveground tanks and piping shall be protected by a suitable coating which prevents corrosion and deterioration. The coating system shall be maintained throughout the operational life of the tank.



▶ ASTs in Underground Vaults

Piping distribution systems used to dispense Class I or II motor fuels for resale must be provided with release detection equivalent to underground piping release detection addressed in Section 245.445 and equipped with a continuous leak detection system capable of detecting vapors and liquids. The detection system must activate an alarm that automatically shuts down the dispensing system if a release occurs.



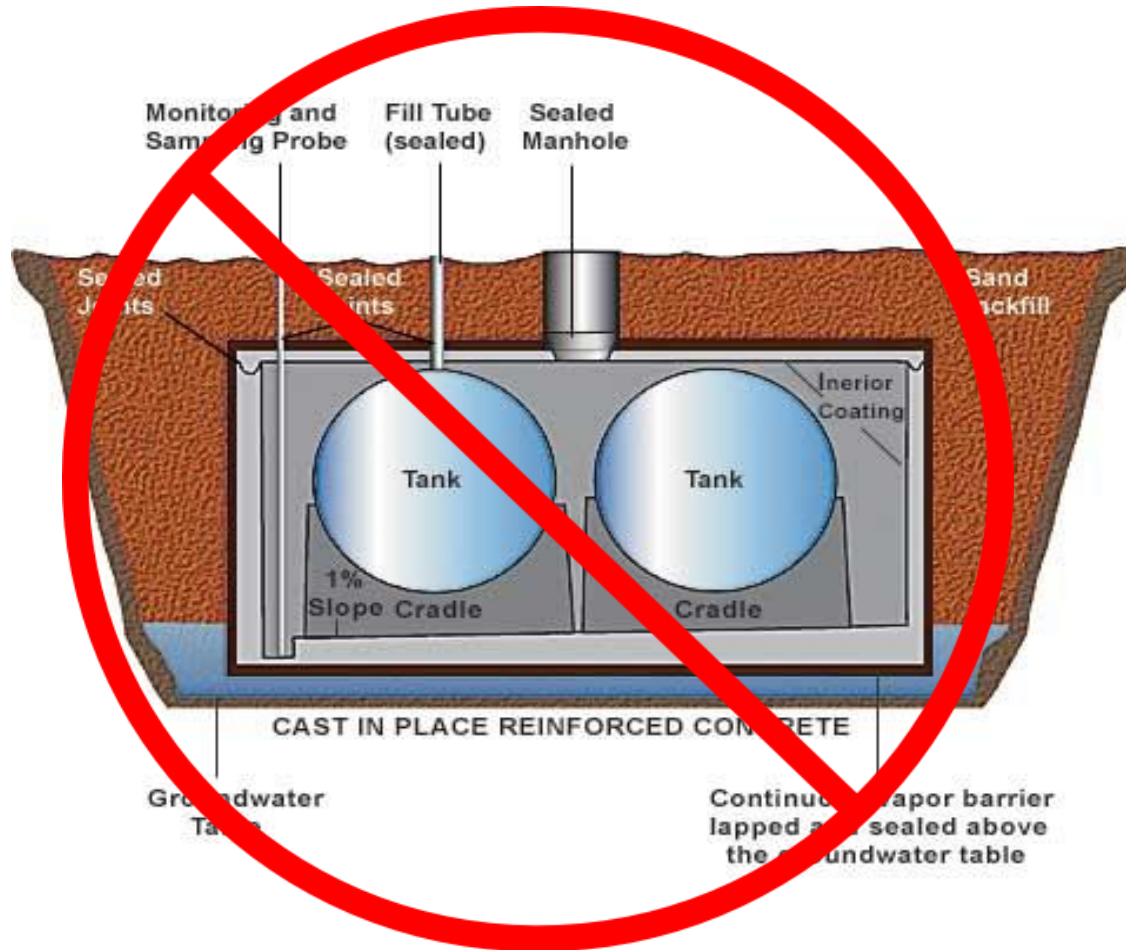
▶ ASTs in Underground Vaults

**If you cannot physically enter the underground vault, it must meet Underground Storage Tank requirements. ASTs can not be utilized as USTs, & vice versa; USTs can not be used as ASTs!!!
(NFPA 30, PA L & I)**



▶ ASTs in Underground Vaults

A tank must be in its own vault. Adjacent vaults may share a common wall.



► Questions from the field....

Can we use this tank to store aviation gas?



Questions from the field...

What chime?



Questions from the field...

Why do monthly maintenance checks when you have rain shields?



Questions from the field...

My dad installed this tank 30 years ago...We've never had a problem with it. Why can't we continue using it?



Questions from the field...

...there are more than a dozen reasons why!



➤ Additional Questions?

Now is the time to ask...Thank you for your attention!



Bureau of Environmental Cleanup & Brownfields

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